# Anooshka Bajaj

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**EDUCATION** 

#### Master of Science (M.S.) in Data Science

Indiana University Bloomington, IN, US

Aug 2024 - May 2026

- **GPA:** 3.90 / 4.00
- Research Assistant (R.A.): Working in the Cognitive AI lab, focusing on in-context learning mechanisms in Transformers. Investigating LLMs interpretability and correlating findings with human brain language understanding.
- Relevant Courses: Introduction to Statistics, Applied Machine Learning, Computer Vision, Advanced Database Concepts.

Bachelor of Technology (B.Tech.) in Bio-Engineering with Minor in Computer Science Engineering Indian Institute of Technology (IIT) Mandi, India Aug 2019 - May 2023

- **CGPA:** 8.50 / 10.00
- Relevant Courses: Data Science I (Data Analysis), Data Science II (Probability and Statistics), Data Science III (Machine Learning), Deep Learning and Applications, Biostatistics, Data Handling and Visualization, Data Structures and Algorithms.

Experience

#### Software Engineer - Radisys India Ltd.

Jul 2023 - Jun 2024

Bangalore, Karnataka, India

(Intern: Jul 2023 - Nov 2023)

- Improved 5G network infrastructure by collaborating across teams and optimizing OAM codebase in C++ and Python.
- Managed feature requests across multiple modules, including Configuration Management (CM) (added YANG model configurations as per 3GPP specifications) and Performance Management (PM) (handled performance counters).
- Increased operational efficiency and addressed client requests related to CU (Centralized Unit) by presenting solutions and managing code coordination across 3 teams using **BitBucket**, ensuring clear communication and integration.

## Data Engineer Intern - Technocolabs Softwares Inc.

Jul 2022- Sep 2022

Indore, Madhya Pradesh, India (Remote)

- Pre-processed dataset of over 1 million rows in **Python**, performing Exploratory Data Analysis and Feature Engineering.
- Built data warehouse with BigQuery leveraging Cloud Computing. Managed ETL workflows, generated DAGs using GCP (Google Cloud Composer) and developed interactive dashboards on Google Data Studio with 20+ visualizations.

### Research Intern - IISER Bhopal

Jun 2022- Jul 2022

Bhopal, Madhya Pradesh, India

- Assisted Dr. Sunando Datta in analyzing 2,212 YAP target genes in the Hippo Signaling Pathway to inhibit tumor growth.
- Produced the dataset by web scraping and performed data visualization of target genes belonging to 28 gene groups.
- Deployed a **Python** web app for cell migration analysis from time-series coordinate files using **Flask**.

Projects

#### Skin Cancer Classification App | Deep Learning, CNN, Flask

- Developed a web application to predict and classify skin cancer types from dermatoscopic images uploaded by users, utilizing Convolutional Neural Networks (CNNs) for image classification.
- Trained the deep learning model on HAM10000 dataset to classify skin cancer into one of 7 categories.
- Enhanced model accuracy by evaluating over different architectures and implementing three regularization techniques, resulting in a final deep learning model integrated into an efficient Flask-based web application.

## Events Booking Web Application | NoSQL, MongoDB, PowerBI, React, Node.js

- Led a team of three to design and deploy a full-stack MERN web application for event booking, featuring role-based access control for organizers to list events and attendees to book tickets seamlessly.
- Utilized MongoDB as the primary database with indexed schemas across three collections to optimize data retrieval through efficient NoSQL document structuring and integrated it with Power BI to for real-time data visualization.
- Built React interface with 4 components and analytics dashboards, powered by Node.js backend, hosted on **Render**.

#### Audio Summarizer App | GenAI, NLP, LLM, Streamlit

- Developed an audio summarization web application using OpenAI's Whisper model for transcription and Hugging Face's **Transformers** (t5-small) for generating concise summaries.
- Built a Streamlit-based interface with PyTorch integration for efficient processing of WAV/MP3 audio files up to 200MB.

TECHNICAL SKILLS

Programming Languages: C++, Python, R, MATLAB

Development Tools & IDEs: Jupyter, Conda, Visual Studio Code, Spyder, RStudio

Databases & Data Management: SQL, NoSQL, MySQL, PostgreSQL, MongoDB, Tableau, Power BI, MS Excel

Libraries & Frameworks: NumPy, Pandas, Matplotlib, Scikit-Learn, TensorFlow, PyTorch, Flask, Git

Certifications: Machine Learning: Kaggle, Introduction to Snowflake: DataCamp, MATLAB Onramp: Mathworks